



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029**

21 DEC 2009

Ginger Mullins, Chief
Regulatory Branch
Huntington District
U.S. Army Corps of Engineers
502 Eighth Street
Huntington, West Virginia 25701-2070

Re: PN LRH-2007-937-OHR; Argus Energy WV, LLC; Jims Branch Surface Mine, Wayne and Mingo Counties, West Virginia

Dear Ms Mullins:

The U.S. Environmental Protection Agency (EPA) has reviewed the public notice for Argus Energy's proposed surface mining project, involving the discharges of fill material into approximately 2,341 linear feet of waters of the United States in conjunction with the construction, operation, and reclamation of the Jims Branch Surface Mine located near Breeden in Wayne and Mingo Counties, West Virginia.

The proposal includes the construction of two permanent valley fills and four in-stream sediment ponds. These fills would impact 665 feet of intermittent stream and 840 feet of ephemeral stream channel. Construction of the proposed in-stream sediment ponds would impact 436 linear feet of intermittent stream channels and permanently relocate 450 feet of Kiah Creek back to its historic path.

The applicant has submitted a conceptual compensatory mitigation plan. The physical, biological and chemical characteristics of the streams proposed to be impacted has been assessed and found that they both exhibit good water quality. Proposed post mining reclamation is to remove each sediment pond and restore the impacted 386 feet of stream channel. Additional off-site compensatory mitigation is proposed to compensate for the temporal loss of stream function due to construction of the ponds. To compensate for permanent and temporal stream impacts the applicant proposes off site rehabilitation to 3,700 feet of degraded Kiah Creek. Success of the reconstruction and rehabilitation will be determined using RBP and IFAA methods.

This project is proposed in unnamed tributaries to Kiah Creek of the Twelvepole Creek Watershed. Kiah Creek is listed on the West Virginia 2008 CWA 303(d) list for biological impairment. The Twelvepole Creek Watershed is listed for biological impairment, iron, and fecal coliform and is currently undergoing the development of an approved total maximum daily load (TMDL). EPA has reviewed information regarding other permitted Argus Energy surface mines within the Kiah Creek. Monitoring data from similar on-going mining operations in the watershed are reporting levels of high conductivity and sulfates. For example the Rollem #2 Surface mine the Outlet Effluent data indicates specific conductivity levels of 1844 $\mu\text{S}/\text{cm}$ and 2138 $\mu\text{S}/\text{cm}$. These levels are consistently associated with biological impairment as described below. Based on



information provided by the applicant, conductivity of the unnamed tributaries in the project area were measured below 50 uS/cm and are therefore, a likely and important source of clean freshwater dilution for Kiah Creek. It is also important to note that approximately 26% of the Kiah Creek sub-watershed has already been extensively mined.

The CWA Section 404(b)(1) Guidelines prohibit any discharge of dredged or fill material which would cause or contribute to significant degradation of the aquatic ecosystem, with special emphasis placed on the persistence and permanence of effects, both individually and cumulatively. The Guidelines also state that "no discharge of dredged or fill material shall be permitted if it (1) Causes or contributes, after consideration of disposal site dilution and dispersion, to violation of any applicable State water quality standard..." Many published studies indicate the activities proposed by the applicant, surface mining with valley fills, are strongly related to downstream biological impairment, as indicated by raw taxonomic data, individual metrics that represent important components of the macroinvertebrate assemblage, or when multi-metric indices are considered. These studies show that surface mining impacts on aquatic life are strongly correlated with ionic strength in the Central Appalachians. Downstream of mine sites, specific conductance and component ions can be elevated 20 to 30 times over the background levels observed at un-mined sites. This increase in conductivity impairs aquatic life use and is persistent over time potentially leading to significant degradation of the aquatic ecosystem which cannot be easily mitigated or removed from stream channels. In addition, these aquatic life use impairments can rise to a level of a violation of the State's narrative water quality standard and may violate the antidegradation policy.

In light of the above information, EPA believes that the evidence shows these activities may cause or contribute to an excursion of water quality standards. The CWA Section 404 permit evaluation must ensure that these excursions will not occur and that the cumulative impacts from past, present, and future mines will not have detrimental effects to the watershed and the human environment. To this end, EPA requests that the Corps require that measures are in place prior to the placement of fill in waters of the U.S. to be protective of water quality and ensure that significant degradation of the aquatic ecosystem will not occur. Such measures must be included within the alternatives analysis. The alternatives analysis provided indicates that the applicant proposes to place fill in two valleys adjacent to the site and a third existing site which has available capacity. However, currently, the applicant does not address construction methods or best management practices which may minimize water quality impacts. EPA believes additional minimization options may be available which incorporate best management practices (BMPs) that may be protective of water quality. Such BMPs, for example, may include construction techniques which limit the infiltration of water into the fills and increase run-off to minimize the opportunity to pick up total dissolved solids that are discharged into the stream channels. EPA also recommends that the applicant periodically evaluate the mining conditions during operation to determine if additional avoidance and minimization options exist before starting the next mine phase.

EPA recommends that the Corps' permit incorporate monitoring conditions which require the applicant to submit a biological and chemical monitoring plan adequate to detect downstream impacts from valley fill effluent. In addition, the applicant should submit an adaptive management remedial action plan designed to address and eliminate water quality excursions should they occur. Both plans should be approved by EPA and the Corps prior to project construction. Should water quality excursions occur, implementation of the adaptive management remediation plan should be required.

To compensate for the lost functions of the aquatic resource an accurate assessment of the existing conditions must be preformed. EPA is concerned that the valley fill locations are in fact



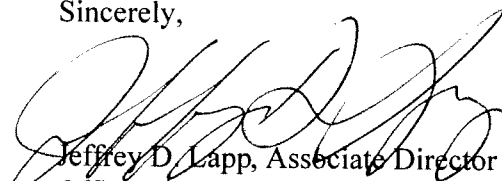
perennial streams. Drainage areas of approximately 30 - 40 acres indicate perennial streams per USGS studies. Benthic data also indicate perennial conditions may be present in lower reaches. WVSCI scores of 80 and 87 in the two unnamed tributaries indicate the presence of high quality benthic communities. These communities, as provided by the Clean Water Act, must be protected from degradation that may be caused by the activities associated with this permit.

The applicant's mitigation plan must ensure the replacement of the lost functions and services of the impacted streams within the 12-digit HUC watershed in which the project will be located. The plan should be designed to ensure that created stream channels will match the lost flow regime (frequency, duration and seasonality of flow annually), provide the same structural habitat (riffle/pool, step/pool, shading, etc.), meet the same water chemistry characteristics (hardness, pH, conductance), and also support the same biologic communities (macroinvertebrates, fish, etc). The mitigation must incorporate performance standards which include observable or measurable physical (including hydrological), chemical, and biological measures to determine if the compensatory mitigation project meets its objectives. Mitigation for temporary impacts (i.e., sediment ponds) should also focus on maintaining water quality and biological recovery. Appropriate biological endpoints (macroinvertebrates) must be part of any success criteria. Success criteria must be established and remediation plan enacted should the stream restoration and Kiah Creek rehabilitation not meet the established mitigation criteria in the permit.

In conclusion, EPA is concerned that the project may adversely effect water quality resulting in an impairment of the aquatic life use and causing significant degradation of the aquatic ecosystem. In light of these concerns, EPA believes that the project, as proposed may not comply with the section 404(b)(1) Guidelines. EPA is committed to working with the applicant to identify additional opportunities to re-design and re-engineer the mine to continue to reduce impacts and to develop the least environmentally damaging practicable alternative.

Should you have any questions please feel free to contact Ms. Jessica Martinsen at 215-814-5144 or by email at martinsen.jessica@epa.gov.

Sincerely,



Jeffrey D. Lapp, Associate Director
Office of Environmental Programs

